

IN THE CLAIMS

1. (currently amended) An amplifier, comprising:
an input for receiving a signal to be amplified;
an amplifier device biased to have a nonlinear gain characteristic in the small signal region;
a small signal linearization circuit coupled between said input and said amplifier device for compensating for the small signal nonlinearity of said amplifier device, said small signal linearization circuit comprising an envelope detector and a gain control circuit controlled in response to the envelope of the input signal detected by the envelope detector; and
an output coupled to the amplifier device for outputting the amplified signal.
2. (original) An amplifier as set out in claim 1, wherein said amplifier device is an LDMOS transistor.
3. (original) An amplifier as set out in claim 1, wherein said amplifier device is biased in lower class AB or in class B.
4. (original) An amplifier as set out in claim 1, wherein said small signal linearization circuit reduces the input signal magnitude over a portion of the gain response of the amplifier device corresponding to the small signal region.
5. (currently amended) An amplifier as set out in claim 4, wherein said small signal gain adjustment-linearization circuit has a gain response substantially opposite to said gain response of the amplifier device.
6. (original) An amplifier as set out in claim 4, wherein the portion of the gain response of the amplifier device corresponding to said small signal region comprises the range of about -15 dB to - 5 dB of maximum input power.

7. (currently amended) An amplifier as ~~set out in claim 1~~, comprising:
an input for receiving a signal to be amplified;
an amplifier device biased to have a nonlinear gain characteristic in the small
signal region;
a small signal linearization circuit coupled between said input and said amplifier
device for compensating for the small signal nonlinearity of said amplifier device,
wherein said small signal linearization circuit comprises comprising a first and second
diode in parallel coupled between the signal input path and ground and a resistor
coupled in series with the first and second diode and ground; and
an output coupled to the amplifier device for outputting the amplified signal.

8. (canceled)

9. (currently amended) An amplifier as set out in claim 8 1, wherein said small
signal linearization circuit further comprises a video amplifier coupled between said
envelope detector and said gain control circuit.

10. – 20. (canceled)